Please replace the paragraph starting at page 57, line 4 with the following.

A15

The distribution controller manages the distribution of presentations and media to appropriate MMSs. Media storage requirements can range from tens of megabytes to tens of gigabytes or more. The distribution controller operates in conjunction with the mass storage of the MMS to migrate media to frequently used stream casters. The distribution controller enables less frequently used digital media to be transmitted to an MMS on demand. The distribution controller also uses caching algorithms to store or distribute frequently accessed media so that the media may be accessed with a high quality of service and at a high processing speed.

Remarks

The specification has been amended in accordance with the requirements of the Notice of Incomplete Reply, dated July 11, 2001. No new matter has been added. Applicant's attorney welcomes the opportunity to discuss the case with the Examiner in the event that there are any questions or comments regarding the Preliminary Amendment or the application.

Respectfully Submitted,

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Appendix

Please replace the paragraph starting at page 53, line 3 with the following.

[Figure 7 depicts an exemplary embodiment of an NRP of the present invention.]The NRP [108A of Figure 7] comprises an NRP control manager[702], a reservation cache [704], a name resolution system[706], a routing engine[708], a switch manager[710], a media location cache[712], and an NRP LDSTS[714].

Please replace the paragraph starting at page 53, line 7 with the following.

The NRP control manager [702] monitors and stores the events and the status of each subsystem and device within the NRP[108A]. The control manager[702] also monitors the transfer of messages between subsystems on the NRP[108A] and the processing of those messages by subsystems in the NRP. The control manager[702] generates an alarm upon detection of an error event. The control manager[702] also monitors and stores configuration changes made from a network operator or another source. The control manager[702] manages the NRP[108A] at an aggregate level.

Please replace the paragraph starting at page 53, line 14 with the following.

The control manager[702] maintains in memory the total bandwidth used by the NRP[108A], the total number of active requests, the current not to exceed bandwidth capacity, the current not to exceed active requests capacity, the current processing capacity, and the current not to exceed processing capacity. The memory enables the NRP[108A] control manager[702] to reject name resolution request, such as a DNS lookup request or a broadband SIP connection request, when the name resolution request will place the NRP above the desired thresholds.

Please replace the paragraph starting at page 53, line 21 with the following.

The reservation cache[704] maintains data identifying current and imminent reservations in the streaming system 102. The reservation data is used to feed the routing engine 708 and to validate whether a reservation exists.

Please replace the paragraph starting at page 54, line 1 with the following.

The name resolution system[706] is the entry point to the routing engine[708]. The name resolution system[706] receives the NRP identification signaling in a translatable protocol and provides the mapping back to replies. In one embodiment, the name resolution system[706] receives an NRP host name in a DNS protocol format as the NRP identification and, after the routing engine[708] has processed the request and an MMS that can provide the media is located, maps the response as an IP address to the MMS, or a stream caster on the MMS. The name resolution system[706] also resolves NRP identification requests from broadband communication devices.

Please replace the paragraph starting at page 54, line 9 with the following.

The routing engine[708] determines whether to accept or to deny a request for media. If the routing engine[708] accepts the request, the routing engine determines the MMS that can provide the requested media. The routing engine[708] can reroute a media request. This can occur, for example, if the stream caster or its media server on an MMS fails or otherwise cannot begin or continue streaming the requested media. Other examples exist. The routing engine[708] collects additional information for a connection or a session based on how the connection or session is established over what initially is provided in the initial reservation. For example, if a viewer is connecting via a directly managed broadband network, the routing engine[708] collects detailed information on the actual logical virtual path/virtual circuit. The

routing engine[708] can update reservation information or NRP logs with this additional information and have the updated information transferred to the RTSMS 106 for future use.

Please replace the paragraph starting at page 54, line 21 with the following.

The switch manager[710] monitors and stores the state of the MMSs and their communication links. The switch manager[710] also transmits the reservation data to the MMSs, receives requests from an MMS to reroute a media stream, and responds to reroute requests.

Please replace the paragraph starting at page 55, line 3 with the following.

The media location cache[712] caches presentation information, such as the identification of the media in a presentation, on what MMS devices the media is located, the anticipated streaming time of the media, the playing time of streamed media, the average bandwidth needed to stream media of a presentation, the maximum bandwidth needed to stream media of a presentation, and the quality of the media encoding. This presentation information is used by the routing engine[708] to make routing decisions.

Please replace the paragraph starting at page 55, line 9 with the following.

The NRP LDSTS[714] collects event data, such as state change data and reservation data, from other subsystems of the NRP[108A]. The LDSTS[714] transmits the event data, including NRP logs, to the RTSMS 106 for billing, reporting, and network management.

Please replace the paragraph starting at page 55, line 13 with the following.

[Figure 8 depicts an exemplary embodiment of an ESRP of the present invention.]The ESRP [104A of Figure 8] enables a media owner to encode media to selected formats and bit rates, establish media rules for media data rights, build presentations, establish orders having

billing and access rights for the presentations, and make the presentations and their media available on the streaming system 102. The ESRP [104A]comprises a media owner manager [802], a source manager[804], a media archive[806], a media rules manager[808], and a distribution controller[810].

Please replace the paragraph starting at page 55, line 20 with the following.

The media owner manager[802] determines the access control and authorization rights of a media owner. The media owner manager[802] manages the process of building presentations and publishing them with the media rules and the order rules. The media owner manager[802] also stores any changes made by the media owner to any presentation or meta data for the associated media.

Please replace the paragraph starting at page 56, line 3 with the following.

The source manager[804] tracks and stores information for the original source of the media before the media is encoded. This function particularly is important for events such as live events since the source manager[804] identifies the resources, such as ingress stream casters, needed for the event. Live events require special handling of the event source signal and transformation of that signal into media that can be distributed. The live event typically is redundantly encoded to ensure that a failure of any subsystem in the ESRP[104A] does not impact the media being distributed. Ingress stream casters are media receivers that receive the media from an encoding device instead of a disk file.

Please replace the paragraph starting at page 56, line 12 with the following.

The media archive[806] stores the encoded media. The media archive[806] may store the media according to an indexing function, such as a voice recognition function, a face recognition function, a text searching function, or another indexing function. Indexing functions

enable the media to be searched, such as with a browser or a corresponding search mechanism, so that media can be located easily. Searches include both key word subject indexes that are text based and streaming media search capabilities that allow a portion of the media to be played.

Please replace the paragraph starting at page 56, line 19 with the following.

The media rules manager[808] tracks the rights and rules associated with the media, including access rights, viewing rights, billing information, and billing order rules. The media rules manager[808] typically obtains information identifying the media from the media owner. The media owner is able to change meta data attached to media and have it distributed. The meta data is changed on the ESRP[104A] and then cached to the RTSMS 106. When a reservation request arrives after the meta data for the media is changed, the new meta data is applied to the reservation request. The media rules manager[808] also records what meta data was altered for audit trail purposes.

Please replace the paragraph starting at page 57, line 4 with the following.

The distribution controller[810] manages the distribution of presentations and media to appropriate MMSs. Media storage requirements can range from tens of megabytes to tens of gigabytes or more. The distribution controller[810] operates in conjunction with the mass storage of the MMS to migrate media to frequently used stream casters. The distribution controller[810] enables less frequently used digital media to be transmitted to an MMS on demand. The distribution controller[810] also uses caching algorithms to store or distribute frequently accessed media so that the media may be accessed with a high quality of service and at a high processing speed.